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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,971	11/10/1999	CHENGIUN JULIAN CHEN	YO999-426	8698

7590 08/04/2004  
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EXAMINER

EDOUARD, PATRICK NESTOR

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 08/04/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/437,971

Applicant(s)

CHEN ET AL.

Examiner

Patrick N. Edouard

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Office Action is in response to communication filed 5/14/04 (paper #9). Claims 1-29 are pending.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,060)

As per claim 1 and 19-20, Ellozy et al teach a method of processing audio-based data associated with particular language, the method comprising (figure 3):

“Storing the audio-based data”(his Audio/Video recording 12, col. 5, lines 5-20);

“Generating a textual representation of the audio-based data the textual representation being in the form of one or more semantic units corresponding to the audio-based data”(his Automatic Speech Recognizer 31 and his Decoded Text 38; col. 5, lines 30-35); and

“ indexing the one or more semantic units and storing the one or more indexed semantic units for use in searching the stored audio-based data in response to a user query”(his indexing 60, col.7, lines 13-20).

It is noted that Ellozy teaches the claimed invention but does not explicitly teach wherein a semantic unit comprises a minimal unit of language having a semantic meaning. However, this feature is well known in the art as evidenced by Yamada who teaches at col. 4, lines 45 to col. 5, lines 9, indexing a Chinese/Japanese index based on syllable which is a minimal unit of language. Therefore, one having ordinary skill in the art at the time the invention was made would have it obvious to recognize that the keyword/keyphrase based indexing of Ellozy could be further indexed based on syllable as taught by Yamada because it would facilitate the sorting and would save space in the memory allocation.

As per claim 5, Ellozy et al teach wherein the generating step comprises decoding the audio-based data in accordance with a speech recognition (figure 3, his automatic Speech Recognizer 34, col. 5, line 30-32).

As per claim 6, Ellozy et al teach wherein the speech recognition system employs a semantic unit based language model (col. 6, lines 47-65, his word language model ).

As per claim 7, Ellozy et al teach “wherein the indexing step comprises time stamping the one or more semantic units”(col. 5, lines 47 to col. 6, line 30, his time stamping of the indexed words).

As per claim 15, Ellozy et teach “wherein the one or more semantic units are indexed according to at least one of when the audio based was produced and where the audio based data was produced” ( figure 3, his time alignment 42).

As per claims 2-4 Yamada teaches “wherein the semantic unit is a syllable, wherein the syllable is a phonetically based syllable”; and wherein the semantic unit is a morpheme ( col. 4, lines 45 to col. 5, lines 9)

As per claims 11-13, Yamada teaches wherein the particular language is Chinese (col. 4, line 25-32).

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,060) in view of Yamada (6,166,733) as applied to claim 1 above and further view of Orsolini et al (5,794,249)

Is it noted that the combination of Ellozy with Yamada teaches the automatic indexing and aligning of audio and text using speech recognition but does not explicitly teach wherein the searching step comprises:

“Processing the user query to generate one or more semantic units representing the information that the user seek to retrieve”; “Searching the one or more indexed semantic units to find a substantial match with the one or more semantic units associated with the user query”; and “Retrieving one or more segments of the audio-based data using the one or more indexed semantic units that match the one or more semantic units associated with the user query”. However these features are well known in the art as evidenced by Orsolini et al who teach the searching step comprises:

“Processing the user query to generate one or more semantic units representing the information that the user seek to retrieve”; col. 1, line 65 to col. 2, line 9, the user choose a keyword and used to query the text balanced tree for each recording, col. 5, lines 28-43,);

“Searching the one or more indexed semantic units to find a substantial match with the one or more semantic units associated with the user query”; (col. 2, lines 3-9; col. 5, lines 45-55); and

“Retrieving one or more segments of the audio-based data using the one or more indexed semantic units that match the one or more semantic units associated with the user query” ( col. 2, lines 10-24, col. 5, lines 45-61).

Therefore, one having ordinary skill in the art at the time invention was made would have found it obvious to incorporate into the combination a searching system as taught by Orsolini et al because it would provide efficient content searching of recordings.

As per claim 9, Orsolini et al teach wherein the searching step further comprises presenting the retrieved data to the user”(col. 5, lines 45-48).

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellozy et al (5,649,060) in view of Yamada (6,166,733)

It is noted that the combination teaches the claimed invention but does not explicitly teach the one or more semantic units are indexed according to speaker attributes. However, this feature is well known in the art. Therefore, one having ordinary skill in the art at the time invention was made would have found it obvious to recognized that the semantics units could be indexed according to speaker attributes because it would provide an efficient method of identifying the corresponding speakers.

6. Claims 21-29 are the same in scope and content as claims 1-19 above and therefore are rejected under the same rationale.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231 or faxed to:

(703) 308-9051, (for formal communications intended for entry) Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick N. Edouard whose telephone number is (703) 308-6725. The examiner can normally be reached on Tuesday-Friday from 07:30 a.m.-6:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645.

The facsimile phone number for this Art Unit is (703) 305-9508. Alternatively, facsimile messages may be sent directly to (703) 305-9644 where they will be stored in the examiner's voice mailbox (telling the examiner that a fax was received) and be automatically printed (i.e. - no delay by the examiner).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Patrick N. Edouard

July 22, 2004



**PATRICK N. EDOUARD**  
**PATENT EXAMINER**